DOCUMENT RESUME

ED 462 302 SE 065 694

AUTHOR Bennof, Richard J.
TITLE Federal Academic Science and Engineering Obligations Increased 10 Percent in FY 2000. InfoBrief.
INSTITUTION National Science Foundation, Washington, DC. Div. of Science Resources Studies.
REPORT NO NSF-02-310
PUB DATE 2002-02-00
NOTE 6p.
AVAILABLE FROM National Science Foundation, Div. of Science Resources Studies, 4201 Wilson Blvd., Arlington, VA 22230. Tel: 301-947-2722; e-mail: paperpubs@nsf.gov; Web site: http://www.nsf.gov/sbe/srs/.
PUB TYPE Numerical/Quantitative Data (110) -- Reports - General (140)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Colleges; *Data; Engineering Education; *Financial Support; Higher Education; Nonprofit Organizations; *Research and Development; Science Education; Universities

ABSTRACT

The National Science Foundation (NSF) has collected data annually since 1965 on the Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions. This document reports on the federal support for academic science and engineering (S&E) activities and research and development (R&D) projects in fiscal year 2000. (YDS)

Reproductions supplied by EDRS are the best that can be made from the original document.

ED 462 302

# Federal Academic Science and Engineering Obligations Increased 10 Percent in FY 2000. InfoBrief.

Richard J. Bennof

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

- ❑ This document has been reproduced as received from the person or organization originating it.
- ❑ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

SE 065 694

BEST COPY AVAILABLE

INFOBRIEF SRS
Science Resources Statistics

National Science Foundation
Directorate for Social, Behavioral, and Economic Sciences

NSF02-310
February 2002

# FEDERAL ACADEMIC SCIENCE AND ENGINEERING OBLIGATIONS INCREASED 10 PERCENT IN FY 2000

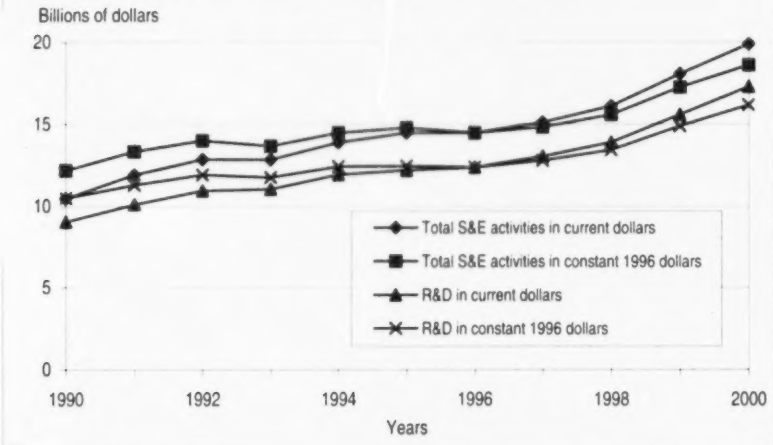
by Richard J. Bennof

The National Science Foundation (NSF) has collected annual data on the Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions since 1965. The latest data indicate that Federal agencies obligated a new high of $19.9 billion for academic science and engineering (S&E) activities in fiscal year (FY) 2000—an increase of $1.8 billion, or 10 percent (8 percent when adjusted for inflation) over FY 1999 levels. The increase follows a 12-percent current-dollar increase (11 percent in real dollars) in total Federal academic S&E support between FYs 1998 and 1999.

## Categories of Support

Federal support for academic S&E activities mostly funds research and development (R&D) projects, which have accounted for 84 to 87 percent of total Federal academic S&E support over the last decade (figure 1). A new high of $17.3 billion was reached in Federal academic R&D

Figure 1. **Federal obligations for academic science & engineering (S&E) activities and for S&E research and development (R&D): fiscal years 1990-2000**




**SOURCE:** National Science Foundation/Division of Science Resources Statistics, Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions: FY 2000

Information and data from SRS—the Division of Science Resources Statistics—are available on the web at: <http://www.nsf.gov/sbe/srs/>. For more information about obtaining reports, contact paperpubs@nsf.gov or call 301-947-2722. For NSF's Telephonic Device for the Deaf, dial 703-292-5090.

support in FY 2000, representing an 11-percent current-dollar increase—and a 9-percent increase in real dollars—over the previous year (table 1). The Department of Health and Human Services (HHS) accounted for three-fifths ($10.5 billion) of all Federal academic R&D obligations in FY 2000 and more than four-fifths of the total R&D increase. Federal support for academic S&E activities covers five other categories as well— (1) fellowships, traineeships, and training grants; (2) R&D plant; (3) facilities and equipment for S&E instruction; (4) general support for S&E; and (5) other S&E activities. Funding levels for four of these categories increased in FY 2000:

Table 1. **Federal academic science and engineering (S&E) obligations, by type of activity: fiscal years 1999-2000**

| Type of activity | (Millions of dollars) | | (Percentage change) | |
|---|---|---|---|---|
| | FY 1999 | FY 2000 | Current dollars | Constant 1996 |
| S&E total | 18,058 | 19,879 | 10.1 | 7.9 |
| R&D | 15,570 | 17,281 | 11.0 | 8.7 |
| R&D plant | 173 | 248 | 43.5 | 40.6 |
| Facilities for instruction | 47 | 62 | 31.0 | 28.3 |
| Fellowships, traineeships, and training grants | 844 | 783 | -7.2 | -9.1 |
| General support for S&E | 315 | 325 | 3.4 | 1.3 |
| Other S&E activities | 1,110 | 1,181 | 6.4 | 4.2 |

**NOTE:** Percentage changes are based on unrounded numbers.

**SOURCE:** National Science Foundation/Division of Science Resources Statistics, Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions: FY 2000

- Federal obligations for R&D plant increased by 44 percent to $248 million. Most of the increase was from funding by the HHS' National Institutes of Health.

- Funds for facilities and equipment for S&E instruction rose to a new high of $62 million, a 31-percent jump. Most of the increase was reported by the Department of Transportation.

- Obligations for general support projects reached a new high of $325 million in FY 2000, a 3-percent rise resulting mostly from increased HHS support. Such projects can include either support provided without any specification of purpose other than that the funds be used for scientific projects or support for activities within a specified discipline but without specification of explicit purpose.

- Funds for other S&E activities increased 6 percent to a record high of $1.2 billion. Most of this increase was supplied by the Department of the Navy within the Department of Defense (DoD) and the Department of Agriculture's (USDA's) Cooperative State Research, Education, and Extension Service. This category encompasses all academic S&E obligations that cannot be assigned elsewhere and includes activities in support of technical conferences, teacher institutes, and programs aimed at increasing the scientific knowledge of precollege and undergraduate students.

- Fellowships, traineeships, and training grant support decreased by 7 percent to $783 million; the Department of Education was the major source of this decrease.

## Agency Sources

HHS accounted for 57 percent of all Federal FY 2000 academic S&E obligations. HHS, NSF, and DoD together provided 81 percent of total Federal academic S&E funding. S&E funds obligated by HHS grew by 15 percent in current dollars. DoD and NSF reported S&E support level increases of 11 percent and 5 percent, respectively, in current dollars. USDA, the National Aeronautics and Space Administration (NASA), and the Department of Energy (DOE) provided 75 percent of the remaining academic S&E total. Of those three agencies, only NASA showed a current-dollar decrease: its obligations fell by 2 percent. USDA and DOE support increased by 14 percent and 7 percent, respectively, in current dollars.

## University Shares

The Johns Hopkins University (including its Applied Physics Laboratory) continued to be the leading academic recipient of Federal S&E support in FY 2000 (table 2), with HHS and DoD together providing 86 percent of its Federal S&E obligations. About $6 of every $7 in the university's $933 million total Federal S&E obligations supported R&D projects, with most of the remainder allocated to other S&E activities. The top 20 universities, ranked by Federal academic S&E obligations, accounted for 36 percent of the Federal

Table 2. **Federal academic science & engineering (S&E) support to the top 20 universities: FY 2000**

| Rank | Institution | Total academic S&E | USDA | DoD | DOE | HHS | NASA | NSF | Other agencies[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | (Millions of dollars) | | | | | | | |
| | Total, all institutions | 19,879.2 | 1,080.9 | 2,007.1 | 696.2 | 11,319.3 | 1,015.9 | 2,823.7 | 936.1 |
| 1 | Johns Hopkins Univ[1] | 933.2 | 0.6 | 371.9 | 1.9 | 429.8 | 96.0 | 20.2 | 12.9 |
| 2 | Univ of Washington | 444.6 | 4.3 | 35.2 | 14.4 | 314.1 | 8.9 | 48.0 | 19.8 |
| 3 | Univ of CA Los Angeles | 398.6 | 0.0 | 25.3 | 21.3 | 300.6 | 10.2 | 34.9 | 6.3 |
| 4 | Stanford University | 377.9 | 0.2 | 37.6 | 20.7 | 213.0 | 48.2 | 52.4 | 5.8 |
| 5 | University of Michigan | 377.6 | 0.7 | 28.2 | 11.6 | 266.5 | 8.0 | 46.2 | 16.3 |
| 6 | Univ of Pennsylvania | 374.0 | 0.8 | 12.6 | 7.6 | 326.2 | 1.4 | 21.8 | 3.5 |
| 7 | Univ of CA San Diego | 357.6 | 0.1 | 31.0 | 10.4 | 194.1 | 22.2 | 95.5 | 4.3 |
| 8 | Harvard University | 330.7 | 0.2 | 11.6 | 6.3 | 262.3 | 8.3 | 29.7 | 12.3 |
| 9 | Univ of Colorado | 324.2 | 0.7 | 14.5 | 5.8 | 167.8 | 59.3 | 39.0 | 37.2 |
| 10 | Univ of CA San Francisco | 315.0 | 0.0 | 1.4 | 0.7 | 308.9 | 0.4 | 3.5 | 0.0 |
| 11 | Columbia Univ City NY | 309.9 | 0.0 | 6.7 | 8.1 | 231.2 | 11.8 | 50.0 | 2.0 |
| 12 | Univ of Minnesota | 309.6 | 29.1 | 42.0 | 10.9 | 177.5 | 4.6 | 38.6 | 6.9 |
| 13 | Washington University | 303.7 | 1.1 | 1.4 | 2.2 | 281.0 | 4.3 | 8.2 | 5.5 |
| 14 | Univ of WI Madison | 303.1 | 29.1 | 9.4 | 22.3 | 170.7 | 12.2 | 54.6 | 4.8 |
| 15 | Yale University | 279.5 | 1.0 | 7.8 | 9.4 | 243.2 | 2.9 | 14.4 | 0.8 |
| 16 | Cornell University | 271.6 | 34.1 | 19.4 | 3.8 | 127.7 | 6.0 | 78.2 | 2.3 |
| 17 | MA Inst of Technology | 269.0 | 0.0 | 54.3 | 58.4 | 75.2 | 21.5 | 51.7 | 7.8 |
| 18 | PA St U University Park | 264.3 | 23.0 | 103.4 | 7.2 | 73.9 | 16.0 | 34.2 | 6.6 |
| 19 | University of Pittsburgh | 262.0 | 0.2 | 8.9 | 2.6 | 229.6 | 2.9 | 15.3 | 2.4 |
| 20 | Univ of NC Chapel Hill | 254.7 | 1.0 | 4.9 | 1.4 | 218.0 | 1.2 | 15.7 | 12.5 |
| | Total, top 20 institutions | 7,060.9 | 126.1 | 827.5 | 227.2 | 4,611.4 | 346.5 | 752.1 | 170.0 |

[1]Includes funding for the Applied Physics Laboratory

[2]Includes Department of Interior, Department of Commerce, Office of Justice Programs (part of Department of Justice), Department of Housing and Urban Development, Agency for International Development, Department of Labor, Department of Transportation, Environmental Protection Agency, Social Security Administration, Nuclear Regulatory Commission, Department of Education, and Appalachian Regional Commission.

**KEY**: USDA = Department of Agriculture
DoD = Department of Defense
DOE = Department of Energy
HHS = Department of Health and Human Services
NASA = National Aeronautics and Space Administration
NSF = National Science Foundation

**SOURCE**: National Science Foundation/Division of Science Resources Statistics, Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions: FY 2000

total. All but one of the top 20 recipients in FY 2000 were also among the top 20 universities in FY 1999. The new entrant was the University of North Carolina at Chapel Hill (20th after being 22nd the prior year); it replaced Duke University (21st after being 20th).

## User Notes

The Federal academic S&E obligations data presented in this InfoBrief were obtained from 18 agencies that participated in the FY 2000 Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions. Data from this annual survey allow Federal S&E support to be reported by funding agency, type of institution, institutional ranking, and geographic distribution. The full set of Detailed Statistical Tables on the FY 2000 Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions will be available online (http://www.nsf.gov/sbe/srs/).

NSF makes available computer-generated Institutional Profiles for individual doctorate-granting institutions and for schools with S&E departments that grant master's degrees. These profiles contain data from this survey and from NSF's other two academic S&E surveys: the Survey of Research and Development Expenditures at Universities and Colleges, and the Survey of Graduate Students and Postdoctorates in Science and Engineering. Data from the three surveys are also available via the World Wide Web (http://www.nsf.gov/sbe/srs/stats.htm) and the Computer-Aided Science Policy Analysis and Research (WebCASPAR) database system, a Web tool for retrieval and analysis of statistical data on academic S&E resources (http://caspar.nsf.gov).

This InfoBrief was prepared by

Richard J. Bennof
Division of Science Resources Statistics
National Science Foundation
4201 Wilson Boulevard, Suite 965
Arlington, VA 22230
703-292-7783
rbennof@nsf.gov

NSF 02-310

PRESORTED STANDARD
POSTAGE & FEES PAID
National Science Foundation
Permit No. G-69

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

RETURN THIS COVER SHEET TO ROOM P35 IF YOU DO NOT WISH TO RECEIVE THIS MATERIAL ☐ , OR IF CHANGE OF ADDRESS IS NEEDED ☐ , INDICATE CHANGE INCLUDING ZIP CODE ON THE LABEL (DO NOT REMOVE LABEL)

NATIONAL SCIENCE FOUNDATION
ARLINGTON, VA 22230